The Great Lakes Environmental Law Center

Protecting the world's greatest freshwater resource and the communities that depend upon it

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Re: How does Michigan's renewables requirement compare to other states/provinces/countries? How are other jurisdictions similar/dissimilar? What has been the experience in other jurisdictions in terms of compliance, costs, reliability, and environmental impact?

Michigan's current Renewable Portfolio Standard (RPS) requires that 10 percent of retail energy sales come from renewable energy resources by 2015. For 2011, the Michigan Public Service Commission (MPSC) estimated that the state's renewable energy percentage was 4.4 percent, with a projection of 9 percent by the 2015 deadline year.

While Michigan's 2015 timeframe appears to be relatively ambitious, most other states with RPS legislation have set substantially higher goals and have allowed themselves more time to accomplish such objectives. For example, Oregon, Minnesota, Nevada, Illinois, and Delaware all aim to achieve 25 percent renewable energy by 2025. California has one of the most ambitious plans in the United States, and has set itself to a goal of 33 percent renewable energy by 2020. Only 13 states lack any sort of binding RPS or goal.

Comparing states such as Hawaii or Nevada to Michigan for the purposes of renewable energy development would not be useful due to vast differences in climate and geography.

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¹ See Public Act 295 of 2008 (MCL 460.1021-1053). Primary renewable resources include wind, solar, landfill gas, biomass, and hydroelectric facilities. For a brief economic assessment of Michigan's RPS, see GLELC's comment for Renewable Energy question 2.

² MPSC, Report on the Implementation of the P.A. 295 Renewable Energy Standard and the Cost-Effectiveness of the Energy Standards at 6 (2013).

³ Database of State Incentives for Renewables and Efficiency. See: http://dsireusa.org/.

⁴ *Id*.

However, an examination of Minnesota, Illinois, and Oregon may be assistive in drawing more substantive comparisons to Michigan's RPS.

As of 2011, all of Minnesota's utilities were in compliance with its RPS.⁵ Renewable energy includes solar, wing, hydroelectric, hydrogen, and biomass.⁶ The cost reports for compliance were mostly positive. Out of the fourteen utilities who submitted reports, eight stated that compliance with the Minnesota RPS resulted in little or no additional costs (and actually amounted to savings for some customers).⁷ Specifically, Xcel Energy reported a .7 percent decrease in rates as a result of the RPS, and Minnesota Power issued a statement touting the RPS as having a positive impact on rates. On the other hand, Minnkota reported a rate increase of 16 percent to its customers, and Dairyland Power reported an increase of 6.6 percent.⁸ As for the environmental impacts of the RPS in Minnesota, there are no specific reports available on that subject. However, between the projected closure of 12 coal generators and the increase in renewables, Minnesota's greenhouse gas emissions will presumably decrease in the coming years.⁹

Compliance also appears to be consistent in Illinois. The Illinois Power Agency (IPA) estimates that, as a result of the RPS, electricity prices decreased by \$1.30 per MWh. ¹⁰ This equated to an overall savings of \$176.85 million in electricity production in 2011. ¹¹ In the same

⁵ The Minnesota Office of Energy Security, *Report to the Minnesota Legislature*, at 7 (January 7, 2011). Report available at:

http://www.state.mn.us/mn/externalDocs/Commerce/Compliance_with_Renewable_Energy_Objectives_2011_0110 11103820 MN REO Report.pdf

⁶ *Id*. at 3.

⁷ Dan Haugen, *Mixed Rate Impact from MN Renewable Standard*, Midwest Energy News (November 2, 2011). Available at: http://www.midwestenergynews.com/2011/11/02/minnesota-utilities-report-mixed-rate-impact-from-renewable-standard/

⁸ *Id*.

⁹ David Shaffer, *Fergus Falls coal plant to close in '20*, Star Tribune (January 31, 2013). Available at: http://www.startribune.com/business/189249771.html?refer=y

¹⁰ Illinois Power Agency, *Annual Report* at 19 (March 30, 2012). Available at: http://www2.illinois.gov/ipa/Documents/April-2012-Renewables-Report-3-26-AAJ-Final.pdf ¹¹ *Id*.

year, the use of renewable energy decreased the state's carbon dioxide (CO₂) emissions by over 5.5 million tons. 12 The IPA appears confident that the RPS in Illinois has been, and will continue to be, both economically and environmentally beneficial. While these accomplishments have mostly been achieved through the expansion of wind power, the following are also eligible sources of renewable energy under the state's RPS: wind, solar, biomass, and hydroelectric. 13

Finally, Oregon's RPS program has demonstrated success as well. That program includes the following as renewable resources: solar, wind, hydroelectric, ocean thermal, wave, tidal power, geothermal, biomass, and municipal solid waste. ¹⁴ Two of the state's largest utilities, which produce almost 65 percent of Oregon's energy, had over 9 percent renewables in 2011. This was almost double the 2011 goal of 5 percent. Pacific Gas and Electric reported a small increase in rates, by about .8 percent. However, it is difficult to assess whether this is due to increased fuel costs—primarily from coal. Moreover, the Public Utilities Commission has stated that renewable energy "will not result in higher rates for customers." Oregon's RPS report is not as comprehensive as reports previously cited herein, but it does appear that electric rates have held steady as utilities ramp up renewables production. From an environmental standpoint, the obvious benefits of emissions reductions have likely been a positive factor as well.

In terms of other provinces and nations, a few are worth noting briefly. First, Ontario has had tremendous success in decommissioning coal plants and expanding renewable resources. By the end of 2014, Ontario will shut down its last two coal plants, and will have approximately

¹² *Id*. at 19.

¹⁴ U.S. Department of Energy. Available at: http://energy.gov/savings/renewable-portfolio-standard-3

¹⁵ Major Oregon utilities ahead of green energy goals, Climate Solutions. Available at:

http://climatesolutions.org/solution-stories/Stories/major-oregon-utilities-ahead-of-green-energy-goals ¹⁶ See fn. 15.

2,000 MW of wind power online.¹⁷ This rapid expansion of the renewable energy sector will create as many as 50,000 new jobs and lead to over \$27 billion in investment by 2018.¹⁸ Other success stories for renewable energy include: Iceland, 100 percent renewable; Norway 97 percent; Sweden, 55 percent; and Germany, 21 percent (increasing steadily).¹⁹

While Michigan is on the right track with renewable energy development, it is clear that other jurisdictions with more aggressive plans have had success. As the renewable energy market expands, competition will increase and prices will continue a favorable trend. The fact of the matter is that renewable energy is going to be a significant part of the energy mix in the near future, and Michigan must position itself to be a leader in that sector.

Respectfully submitted,

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¹⁷ Christa Marshall, *Ontario Phases Out Coal-Fired Power*, Scientific American (January 11, 2013). Available at: http://www.scientificamerican.com/article.cfm?id=ontario-phases-out-coal-fired-power. See also: Craig Lewis, *An Energy Lesson From Ontario*, Huffington Post (February 13, 2013). Available at: http://www.huffingtonpost.com/craig-lewis/energy-lesson-from-ontario b 2672366.html.

¹⁹ Elisabeth Rosenthal, *Life After Oil and Gas*, The New York Times (March 24, 2013).